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Introduction

This report is submitted in compliance with contractual reporting requirements for Award Number DAMD 17-99-1-9289, Institutional Training Program in Breast Cancer. The program is a collaborative effort that includes Meharry Medical College and Vanderbilt University Medical Center.

The program's tasks are to: (1) Recruit Trainees; (2) Recruit Visiting Professors; (3) Enroll additional trainees; and (4) successfully complete the education of at least three trainees as evidences by publications and secured appointment in the field of breast cancer.

Tasks # 1 and # 3. Trainee Recruitment and Progress

The program has continued to exceed its goals. The original schedule was to have one fellow by the end of the first year, with enrollment of a second or third trainee to occur in the second year of the program. However, during the first year, we identified an enrolled three trainees: Alicia Malin, DR. P.H., Cass Teague, Ed.D., and Lin Wu, Ph.D. (two of whom have now completed their work with the project). Last year, we added a fourth, Michael Epelbaum, Ph.D., and this year, we have added a fifth, Dr. Sonya Boyapati. Dr. Boyapati, like Dr. Malin, is a joint trainee with Vanderbilt. Dr. Boyapati's main project will be to design a clinical trial to test the potential of ginseng among breast cancer survivors in the United States. She notes that although ginseng is widely used among cancer survivors in

Asian countries to assist recovery and boost energy, its effects and safety among breast cancer survivors, particularly in the U.S. population, have not been adequately evaluated and documented. After obtaining IRB approval and informed consent, the objectives of the clinical trial will be to (1) determine whether ginseng supplementation reduces cancer-related fatigue; (2) determine whether ginseng supplementation improves sleep quality; and (3) determine whether ginseng supplementation improves natural killer cell activity. Eligible subjects will be randomized to two treatment groups, "A" and "B". The study will consist of one week of baseline assessment, a randomly assigned, two-week intervention period of either ginseng or placebo, followed by a crossover to the opposite treatment for four weeks. Fatigue will be assessed using both subjective (structured, validated questionnaires) and objective measures (actigraphy and a waist accelerometer). Immune function will be determined by measuring natural killer cell activity. Results from this pilot study will be used to develop a grant proposal to complete the training objective. Dr. Epelbaum is using public information data sets to develop new methods for analyzing breast cancer mortality in the United States. He has presented a paper using these methods at the June meetings of the Society for Epidemiological Research. Dr. Teague is analyzing data from an ongoing, IRB-approved Meharry investigation pertaining to mammography among low-income patients attending the Meharry Medical College outpatient clinics. Preliminary results indicate a correlation

between failure to use mammography services and several indices of social support.

The addition of Dr. Boyapati reflects the continued excellent collaboration and support from Vanderbilt University. In particular, it is the collaboration between the two schools that has allowed for the higher than expected enrollment of fellows and has thereby increased the potential of the program for productive work.

That progress has been more rapid than anticipated has also been possible because of the continued support of Drs. X.O. Shu and W. Zheng from Vanderbilt University. As indicated in the preceding progress report, Dr. Shu joined the faculty of this project via the Vanderbilt sub-contract during year two. In order to provide a more direct replacement for the departure Dr. Kangmin Zhu, Dr. Nathaniel Briggs, who has joined the Meharry faculty, was also added to the program beginning in February 2002. Since there is a need for increased data analysis pertaining to trainee work and since planned use of funds would not exceed the allocation, Dr. Briggs' effort on the project is 50%. Dr. Briggs is certified in SAS programming by the SAS Institute. In addition to assisting with trainee publications, he is using the analysis of existing data-bases to assist with teaching the fellows methods of epidemiologic data analyses.

Task # 2. Visiting Professors. (Recruitment Months 1-6)

Recruitment was completed as scheduled during the first year. As per our plan, trainees have had the benefit of collaborations

with two prominent local researchers, Drs. Lawrence Gaines of the Department of Psychiatry at Vanderbilt University, and Dr. Baqar Husaini, Director of the Center for Health Research at Tennessee State University. They provided valuable insight into the work of the current fellows and served as catalysts for the future. Because Drs. Mallin and Wu were completing their programs and Drs. Teague and Epelbaum were just getting started last year, we also decided to have Drs. Hennekens and Champion visit this year. They both reviewed each fellow's work, listening to presentations and spending one-on-one mentoring time with them as well.

Tasks # 3 and # 4. Complete Training of First Two Trainees.

(Months 7-24).

This goal has been completed in that the program has graduated its first two trainees, Dr. Alicia Malin and Dr. Ling Wu. Dr. Malin can be counted as a success in that she has successfully competed for funding and has secured a position in the field of breast cancer research. She is Principal Investigator on a project entitled, "Insulin resistance, IGF's and energy balance in the risk of breast cancer". On the other hand, Dr. Wu has, for now at least, made a career decision to leave the field of academic scientific research. We have kept open the potential, however, of assisting him should he have a change of heart.

Task # 5. Complete Training of Second Two Trainees. (Months 8-48).

Completion of this task is on schedule, and as noted, we should exceed the goal by completing the training of three additional trainees instead of two.

Key Research Accomplishments

Peer Reviewed Abstracts/Presentations/Publications.

Trainee:

Epelbaum M. (2002). Distinguishing between average equality and optimal equality and estimation of lives lost or gained by racial inequalities in mortality in the United States, 1979-1998.

American Journal of Epidemiology. 155: S47.

Faculty:

Husaini, BA, Levine RS, Cain VA, Emerson BA, Sherkat DE. Effect of an educational program on mammography among African American females. American Public Health Association. Atlanta, GA. 2001.

Husaini BA, Sherkat DE, Bragg R, Levine R, Emerson JS, Menten CM, Cain VA. (2001). Predictors of breast cancer screening in a panel study. *Women's Health*. 37(3):35-51.

Mentes CM, Emerson JS, Husaini BA, Hull PC, Sherkat DE, Cain, VA. Role of social support and depression in breast cancer screening among African American women. American Psychological Association. 2002.

Husaini BA, Sherkat DE, Levine R, Bragg R, Cani VA, Emerson JS, Montes CM. (2002). The effects of a church-based breast cancer screening education program on mammography rates among African American women. *J. Nat. Med. Assoc.* 94(2): 100-106.

Zhu K, Hunter S, Bernard LJ, Payne-Wilkes K, +Roland CL, Elam LC, Feng Z, Levine RS. (2002). An intervention study on screening for breast cancer among single African American women aged 65 and older. *Preventive Medicine.* 34:536-45.

Reportable Outcomes:

Three presentations at national, peer-reviewed meetings.

Three peer reviewed papers faculty.

Two trainees have completed the program.

Three trainees are currently enrolled.